



# United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Great Plains Regional Office  
115 Fourth Avenue S.E., Suite 400  
Aberdeen, South Dakota 57401



IN REPLY REFER TO:  
DESCRM  
MC-208

MAY 18 2012

## MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: <sup>ACTING</sup> Regional Director, Great Plains Region

SUBJECT: Environmental Assessment Addendum and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Environmental Assessment Addendum has been completed and a Finding of No Significant Impact (FONSI) has been issued. The Addendum authorizes land use to expand a previously approved well pad to accommodate one additional oil and gas well on the Fort Berthold Indian Reservation.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the Addendum, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the FONSI (40 C.F.R. Part 1506.6(b)). Please post the attached notice of availability at the Agency and Tribal buildings for 30 days.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Tex Hall, Chairman, Three Affiliated Tribes (with attachment)  
Elgin Crows Breast, Tribal Historic Preservation Officer (with attachment)  
Derek Enderud, Bureau of Land Management (with attachment)  
Grady Wolfe, KLJ (with attachment)  
Eric Wortman, EPA (with attachment)  
Jonathon Shelman, Corps of Engineers  
Jeff Hunt, Fort Berthold Agency

***Finding of No Significant Impact***

***Petro Hunt, LLC***

***Addendum to:***

***Petro Hunt, LLC February 2010 Environmental Assessment,  
Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells***

***Fort Berthold Indian Reservation***

***McKenzie County, North Dakota***

The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an addendum to the above referenced Environmental Assessment (EA). The proposal is to enlarge one of the proposed well pads addressed in the previous EA to accommodate the drilling of one additional well. The well pad addressed in this document is currently named 152-94-13B. This well pad was referred to as 24-1H in the February 2010 EA. The previously authorized well pad access road alignment is proposed to remain in the same location. The proposed well pad is located in Section 13, Township 152 North, Range 94 West, 5th P.M. Associated federal actions by BIA include determinations of impacts and effects regarding environmental resources and positive recommendations to the Bureau of Land Management regarding the Applications for Permit to Drill.

The potential of the proposed action to impact the human environment is analyzed in the following Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the EA, I have determined that the proposed project will not significantly affect the quality of the human or natural environment. No Environmental Impact Statement is required for any portion of the proposed activities.

This determination is based on the following factors:

1. Agency and public involvement solicited for the preceding NEPA document was sufficient to ascertain potential environmental concerns associated with the currently proposed project.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed action and the No Action alternatives.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species. This guidance includes the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).
4. The proposed action is designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed project will improve the socio-economic condition of the affected Indian community.



ACTING

Regional Director

5-18-2012

Date

# ENVIRONMENTAL ASSESSMENT

## *Addendum*

United States Bureau of Indian Affairs

Great Plains Regional Office  
Aberdeen, South Dakota



Petro Hunt, LLC

**Addendum to:**

Petro Hunt, LLC February 2010 Environmental Assessment,  
Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells

Fort Berthold Indian Reservation

May 2012

*For information contact:*

*Bureau of Indian Affairs, Great Plains Regional Office  
Division of Environment, Safety and Cultural Resources  
115 4th Avenue SE  
Aberdeen, South Dakota 57401  
605-226-7656*





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## APPENDIX A: PLATS

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## **1 PURPOSE AND NEED FOR THE PROPOSED ACTION**

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Petro Hunt, LLC (Petro Hunt) proposes to authorize the drilling of one additional oil/gas well (Fort Berthold 152-94-13B-24-2H) atop one of the four well pads covered by the previously authorized EA dated February 2010, for which a FONSI was issued. To accommodate the drilling rig for the additional well, the previously approved well pad would also be expanded. The well pad is located in the NW¼ of the NW¼ of Section 13, Township 152 North, Range 94 West, 5<sup>th</sup> P.M. Please refer to *Figure 1, Project Location Map*. The proposed well pad expansion would impact the same general native rangeland land use as the original well pad location. The access road location would remain as previously proposed and authorized.

The well pad expansion would increase the dimensions from the previously approved 350 by 470 feet to 350 by 545 feet. Please refer to *Figure 2, Well Pad Layout*. The expansion would occur along the west edge of the current pad, adding an additional 75 feet. The well pad expansion would result in an additional 0.72 acres of disturbance, bringing the total pad disturbance to 7.12 acres. The additional impact areas were surveyed during an on-site assessment December 15, 2011.

The drill tract for the additional well would occur within the same spacing unit as the previously approved 152-94-13B-24-1H. This well would target the Middle Bakken Formation, accessing potential oil and gas resources within Sections 13 and 24, Township 152 North, Range 94 West. Please refer to *Figure 3, Spacing Unit Overview*.

## **2 AUTHORITIES**

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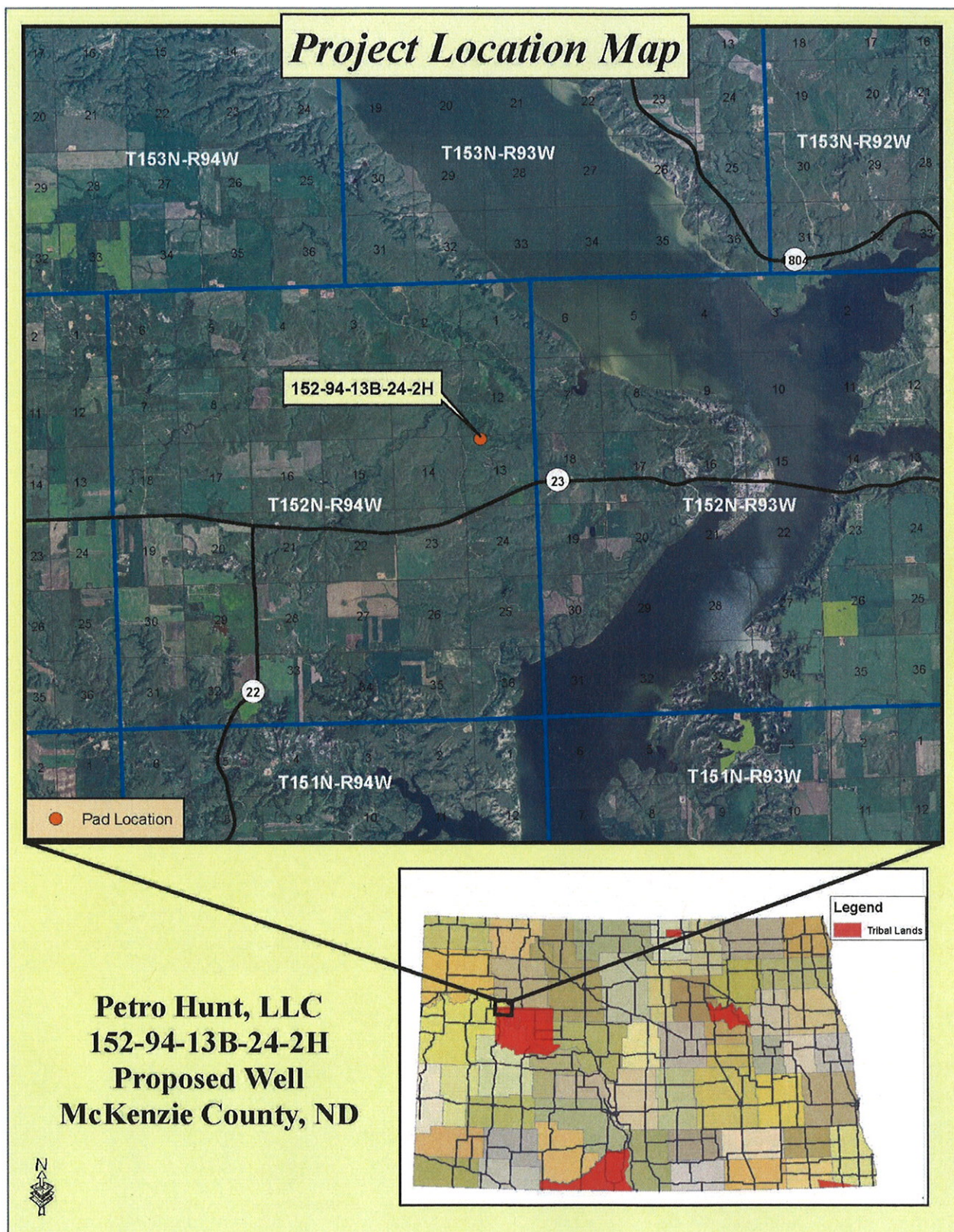
Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 United States Code [USC] 396a, et seq.), the Indian Mineral Development Act of 1982 (25 USC 2101, et seq.), and the Energy Policy Act of 2005 (42 USC 15801, et seq.).

## **3 LEGAL LAND DESCRIPTION OF PROPOSED ACTION**

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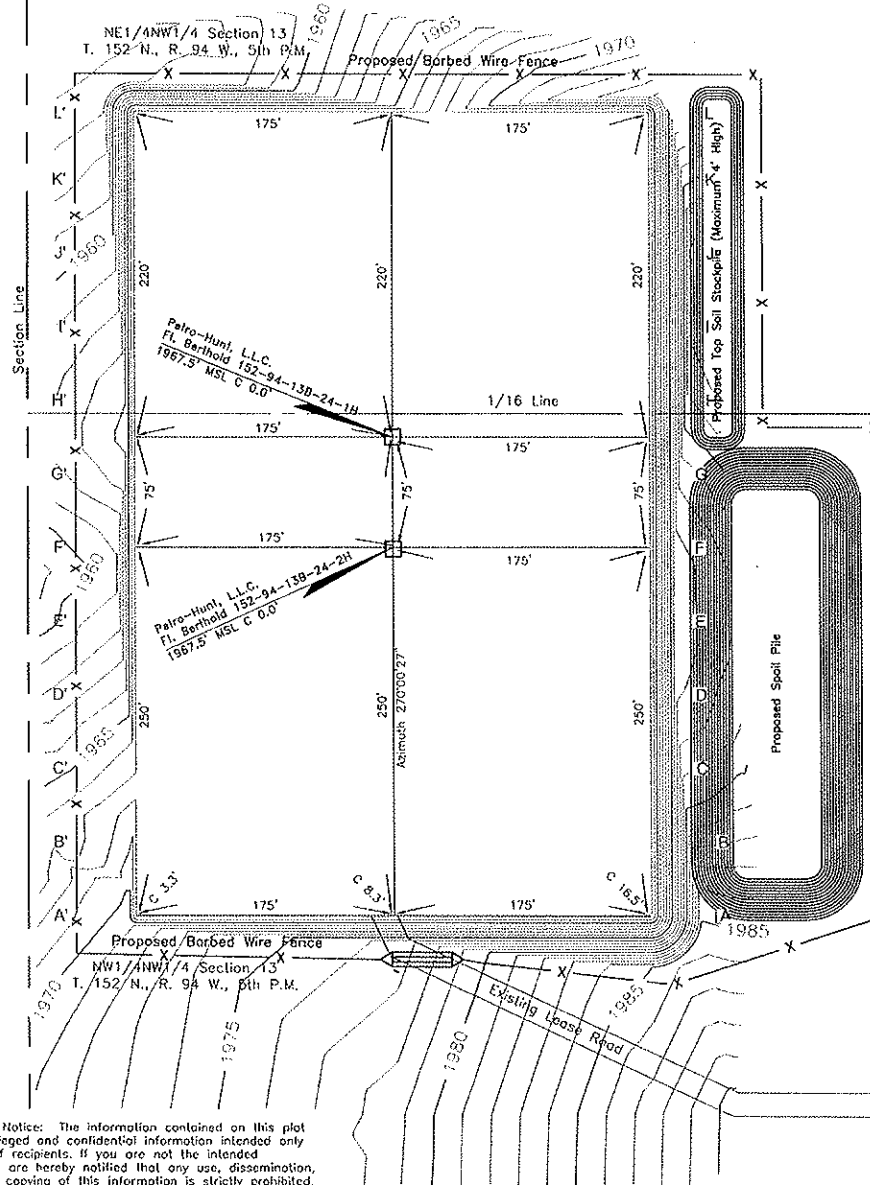
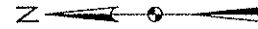
The proposed well and well pad expansion would be constructed in the NW¼ of the NW¼ of Section 13, T152N, R94W, 5th P.M. The access road would follow the same road alignment as was previously proposed and authorized.





**Figure 1, Project Location Map**

# Fort Berthold 152-94-13B-24-1H & Fort Berthold 152-94-13B-24-2H Pad Layout



Confidentiality Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 100'	Date 8/11/2011
Field Book 0-113	Material Pad Layout	Revised 4/11/2012	Project No. 8711251	Drawing No. 7

Kadmas  
Lee &  
Jackson  
Engineers Surveyors  
Planners

Figure 2, Well Pad Layout



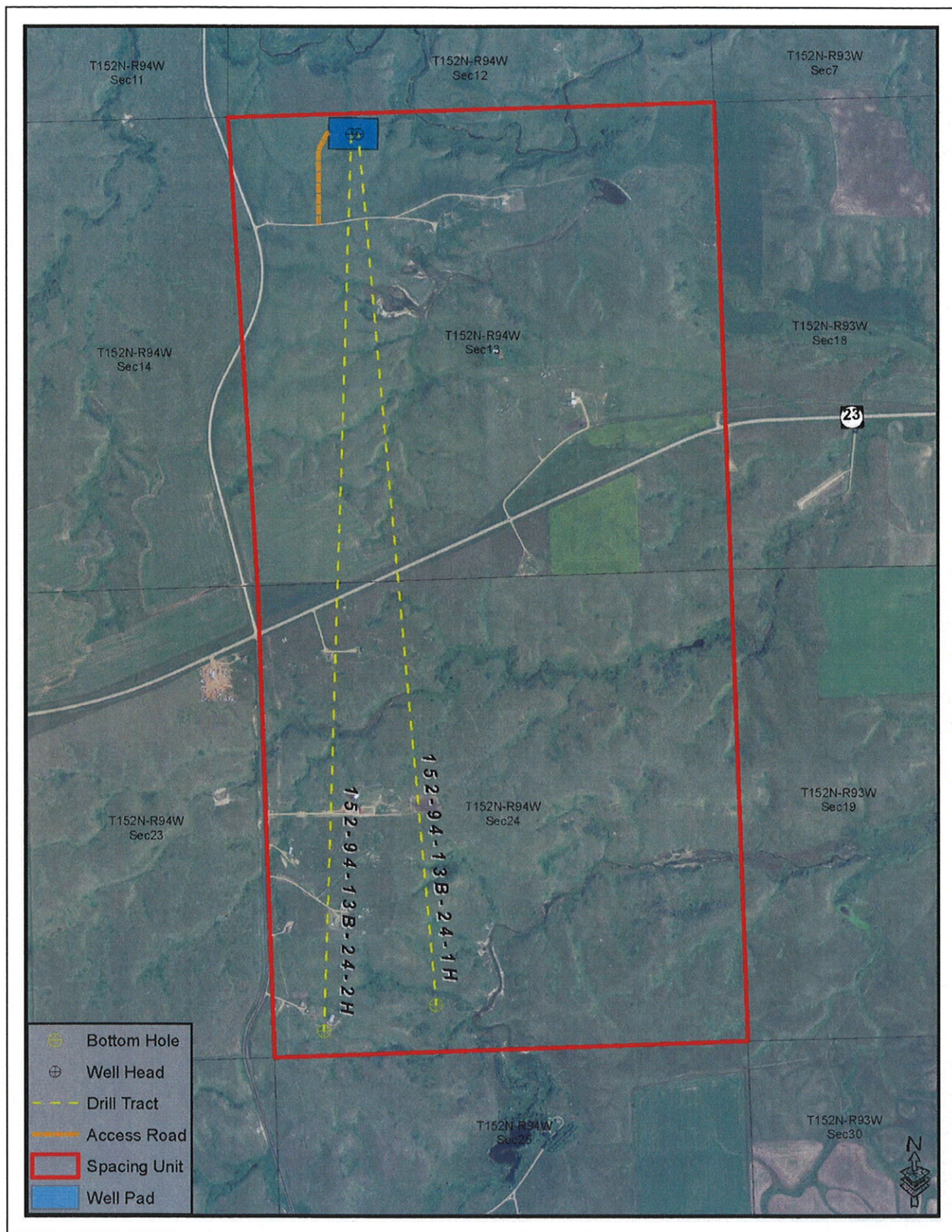


Figure 3, Spacing Unit Overview



## **4** SCOPE OF WORK FOR PROPOSED ACTION

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Drilling of the proposed well and expansion of the current well pad would occur atop and adjacent to the previously approved well pad. The access road would remain in the previously approved location. The dimensions of the proposed well pad would be increased from 350 by 470 feet to 350 by 545 feet. Additional environmental impacts aside from those disclosed in the previously referenced NEPA documents are anticipated from construction of the proposed well pad expansion.

## **5** APPLICABLE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTS

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The following NEPA documents have been previously approved by the BIA for the proposed action:

- Environmental Assessment, Petro Hunt, LLC, Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells, Fort Berthold Indian Reservation, February 2010.

## **6** ASSESSMENT OF ENVIRONMENTAL IMPACTS

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An intensive, pedestrian resource survey of the proposed well pad expansion was conducted on December 15, 2011 by Kadrmas, Lee & Jackson (KL&J). The purpose of these surveys was to gather site-specific data and photos with regards to botanical, biological, threatened and endangered species, eagles and water resources. A 10 acre study area was evaluated for the proposed expansion. In addition, a 0.50 mile wide buffer around all areas of project disturbance was used to evaluate the presence of eagles and eagle nests. Resources were evaluated using visual inspection and pedestrian transects across the site.

The BIA EA on-site assessment of the well pad expansion was also conducted on December 15, 2011. The BIA Environmental Protection Specialist, Petro Hunt and KL&J participated in this assessment. The Tribal Historic Preservation Office (THPO) was notified of the on-site assessment and invited to attend; however, no THPO representatives were present on the on-site. During this assessment, construction suitability with respect to topography, stockpiling, drainage, erosion control, and other surface issues were considered. Those present at the on-site assessment agreed that the chosen location, along with the minimization measures Petro Hunt plans to implement, are positioned in areas which would minimize impacts to sensitive wildlife and botanical resources.

## **7** NEPA ADEQUACY CRITERIA

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The following discussion addresses environmental and social impacts as a result of the proposed action. Impacts are only discussed if the proposed action has changed the impact assessment reflected in the February 2010 EA, or to note why the impacts assessment has not changed.

A. Land Use Impacts

Construction of the well pad expansion would result in the conversion of an additional 0.72 acres of land from its current use into an oil and gas well pad. This conversion is not anticipated to result in a trend towards changing land use patterns. In addition, disturbance required for construction would be minimized by drilling two wells atop a single well pad. No mitigation is proposed. Please refer to *Figure 4, Typical Well Pad Vegetation (View East Towards Pad)*.



*Figure 4, Typical Well Pad Vegetation (View East Towards Pad)*

B. Vegetation

Construction of the well pad expansion would disturb an additional 0.72 acres of vegetation. Upon completion of the additional well, a portion of the well pad would be reclaimed to further avoid environmental areas of concern. Per BIA guidance, interim reclamation measures would occur within six months of construction; however, if conditions prevent interim reclamation from occurring within this timeframe, Petro Hunt would contact BIA to request an extension.

When conditions prevent interim reclamation, such as winter when seed cover cannot be established, crimping and/or mulch would be utilized to cover bare ground areas until conditions improve.

C. Cultural Resources

The proposed project area has been surveyed for cultural resources as part of the NEPA processes discussed above. There was a finding of *No Historic Properties Affected* for a 10-acre survey area included

in the original EA document. An additional area was surveyed on July 27, 2011 to better reflect the pad expansion.

A cultural resource inventory of this proposed well pad expansion was conducted by personnel of Kadmas, Lee & Jackson, Inc., using an intensive pedestrian methodology. Approximately 10 acres were inventoried between July 27 and September 21, 2011 (Macy 2011). No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of **no historic properties affected** for this undertaking. This determination was communicated to the THPO on October 11, 2011; however the THPO did not respond within the allotted 30 day comment period.

Macy, Jennifer N.

(2011) Fort Berthold 152-94-13B-24-2H Well Pad: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLI Cultural Resources for Petro-Hunt, Denver.

## 8 ENVIRONMENTAL COMMITMENTS/MITIGATION

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- Topsoil would be segregated and stored on-site to be used in the reclamation process. All disturbed areas would be re-contoured to original elevations as close as possible as part of the reclamation process.
- When conditions prevent interim reclamation, crimping and/or mulch would be utilized to cover bare ground areas until conditions improve.
- BMPs (may include, but are not limited to, hydro-seeding, erosion maps and biologs) would be implemented to minimize wind and water erosion of soil resources.
- The proposed well pad expansion would avoid surface waters. The proposed project would not alter stream channels or change drainage patterns.
- A closed loop drilling system would be utilized. As part of this, Petro Hunt would implement a closed loop circulation drilling mud system, whereby drilling fluid is circulated from the well into steel mud tanks and the drill cuttings are separated from the drilling fluid. Drill cuttings would be hauled from the site to an approved location.
- The proposed well would be cemented and cased to isolate groundwater aquifers from potentially productive hydrocarbon and disposal/injection zones.
- Disturbed vegetation would be re-seeded in kind upon completion of the project, and a noxious weed management plan would be implemented. The re-seeded site would be maintained until such time that the vegetation is consistent with surrounding undisturbed areas and the site is free of noxious weeds. Seed would be obtained from a BIA/BLM approved source.
- The proposed well pad expansion would avoid impacts to cultural resources. If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA.



- All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.
- Any utility modifications would be identified during design and coordinated with the appropriate utility company.
- Established load restrictions for State and BIA roadways would be followed and haul permits would be acquired as appropriate.
- Suitable mufflers would be put on all internal combustion engines and certain compressor components to mitigate noise levels.
- The well site and associated facilities would be painted in earth tones, based on standard colors recommended by the BLM, to allow them to better blend in with the natural background color of the surrounding landscape.
- BMPs would be used during construction to ensure contaminants do not move off site.
- The entire pad would be bermed to prevent run-off from leaving the site.
- If a whooping crane is sighted within one-mile of a well site or associated facilities while it is under construction, all work would cease within one-mile of that part of the project and the USFWS would be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area.
- Construction is planned to take place in the summer of 2012. If construction takes place during the migratory bird breeding and nesting season, Petro Hunt would have a qualified biologist conduct pre-construction surveys for migratory birds or their nests during the spring season and within five days prior to the initiation of all construction activities. The findings of these surveys would be reported to USFWS. If a bald or golden eagle nest is sighted within 0.5 miles of the project construction area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.
- Wire mesh or grate covers would be placed over barrels or buckets placed under valves and spigots to collect dripped oil.
- Tank batteries would be surrounded by an impervious dike or Sioux containment system that would act as secondary containment to guard against accidental release of fluids from the site. The containment system would be of sufficient size to hold in excess of 110% the capacity of the largest tank in the battery and 24-hour record precipitation.
- Re-seeding of native species shall occur as needed on stockpile areas and slope areas during reclamation.
- Prior to mobilization, drilling rigs and associated equipment would be pressure washed or air blasted off Tribal lands to prevent the possible transportation of noxious or undesirable vegetation onto Tribal lands.
- Prior to construction, Petro Hunt would coordinate with the Fort Berthold Water Authority Director to ensure minimization of impacts to existing water distribution pipelines.
- Disposal areas would be properly fenced to prevent human or animal access.
- All utilities and pipelines would be installed below ground.

- Petro Hunt would provide dust control for their access roads and haul roads.

## **9 NEPA ADEQUACY CRITERIA**

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This document has identified the previously prepared NEPA document: Environmental Assessment, Petro Hunt, LLC, Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells, Fort Berthold Indian Reservation, February 2010.

1. The proposed actions are substantially the same actions and at the sites specifically analyzed in the existing NEPA documents.
2. The range of alternatives is reasonable with respect to the current proposed actions in the existing NEPA documents, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
3. The existing analysis and conclusions are adequate in the existing NEPA documents. The analysis is still valid in light of new studies and/or resource assessment information.
4. The methodology and analytical approach used in the existing NEPA documents continues to be appropriate for the proposed actions.
5. The direct and indirect impacts of the proposed actions are unchanged from those identified in the existing NEPA documents.
6. The cumulative impacts that would result from implementation of the proposed actions are unchanged from those analyzed in the existing NEPA documents.
7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA documents.



## United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Great Plains Regional Office  
115 Fourth Avenue S.E., Suite 400  
Aberdeen, South Dakota 57401



OCT 11 2011

IN REPLY REFER TO:  
DESCRM  
MC-208

Elgin Crows Breast, THPO  
Mandan, Hidatsa and Arikara Nation  
404 Frontage Road  
New Town, North Dakota 58763

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of six proposed oil well pads in McKenzie County, North Dakota. Approximately 191.3 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. One previously recorded archaeological site (32MZ2159) was revisited and two archaeological sites (32MZ2229, 32MZ2230) were located that may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located which appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have reached a determination of **no historic properties affected** for these undertakings, as one of the well pad projects has been canceled and an access road has been rerouted to avoid the remaining archaeological site. The proposed undertakings, locations, and project dimensions are described in the following reports:

Macy, Jennifer N.

- (2011a) Fort Berthold 152-94-15A-22-5H, Fort Berthold 152-94-15B-22-6H & Fort Berthold 152-94-15B-22-7H Triple Well Pad and Access Road: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1884/FB/11)
- (2011b) Fort Berthold 152-94-13B-24-2H Well Pad: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1884/FB/11)
- (2011c) Fort Berthold 152-93-19C-1H & Fort Berthold 152-93-19C-2H Dual Well Pad and Access Road: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1884/FB/11)
- (2011d) Fort Berthold 152-94-11B-14-5H, Fort Berthold 152-94-11B-14-6H & Fort Berthold 152-94-11B-14-7H Triple Well Pad and Access Road: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Bismarck. Ms. on file (AAO-1884/FB/11)

(2011c) Fort Berthold 152-94-14C-11-2H Well Pad Expansion: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1620/FB/09)

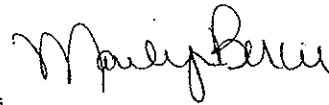
Mitchell, Mary

(2011) Fort Berthold 152-93-9B-10-7H: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck. Ms. on file (AAO-1884/FB/11)

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. We will adhere to the Standard Conditions of compliance.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,



ACTING  
Regional Director

Enclosures

cc: Chairman, Three Affiliated Tribes  
Superintendent, Fort Berthold Agency

# Appendix A

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*Plats*

# WELL LOCATION PLAT

Petro-Hunt L.L.C.

258 119th Avenue S.W. Killdeer, ND 58640

Fort Berthold 152-94-13B-24-2H

250 feet from the north line and 1225 feet from the west line (surface location)

Section 13, T. 152 N., R. 94 W., 5th P.M.

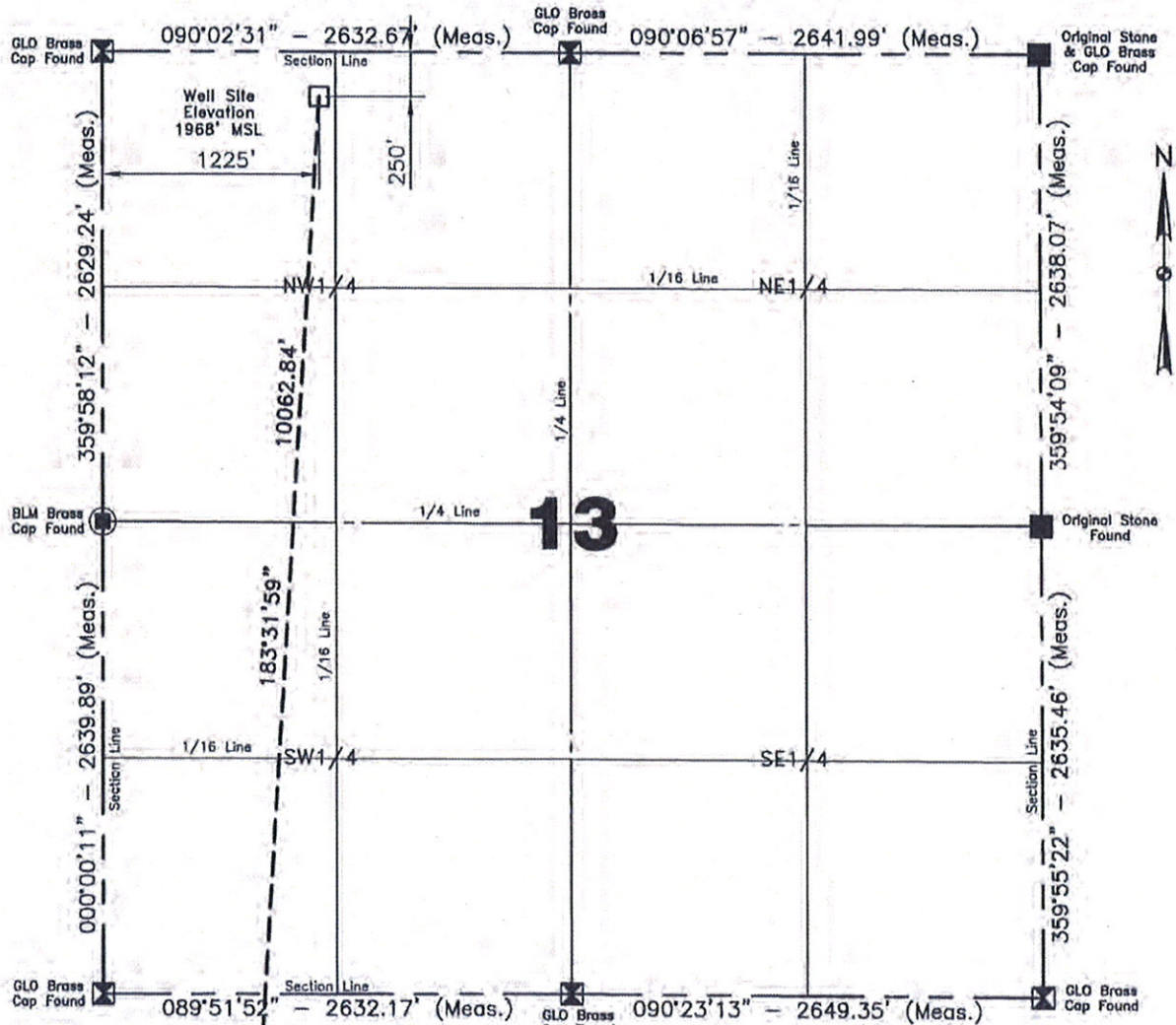
250 feet from the south line and 600 feet from the west line (bottom hole location)

Section 24, T. 152 N., R. 94 W., 5th P.M.

McKenzie County, North Dakota

Surface owner @ well site - Three Affiliated Tribes

Latitude 47°59'29.405" North; Longitude 102°39'33.254" West (surface location)  
Latitude 47°57'50.288" North; Longitude 102°39'42.399" West (bottom hole location)  
[Derived from OPUS Solution NAD-83(CORS96)]



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NOTE: All land corners are assumed unless otherwise noted. The well location shown hereon is not an as-built location.

Scale 1"=1000'

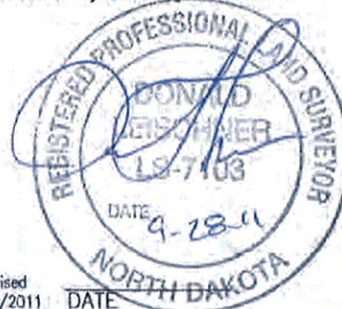
I, Donald Leischner, Professional Land Surveyor, N.D. No. 7103, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

Alvin R. Lambert 7/26/2011, 8/2/2011  
Surveyed By N.D.P.L.S. # 1241 Date

Vertical Control Datum Used  
Sea-Level Datum of NAVD 88  
Based on elevation derived from OPUS Solution on  
GPS\*KLJ1 (iron rebar) Located in the NE1/4NE1/4  
of Section 23 T.152N., R.94W., 5th P.M. being at  
2082.96' Elevation MSL.

Professional Consulting Engineers  
and Surveyors  
Registered in  
North Dakota, South Dakota  
Montana, Wyoming & Minnesota  
Tele-Fax No. 701-572-2019  
Bus. Phone No. 701-572-6352  
222 Airport Road  
Williston, North Dakota 58801-2976  
Certificate of Authorization #C-061

Revised 9/16/2011 DATE



Kadmas  
Lee &  
Jackson  
Engineers Surveyors  
Planners



## HORIZONTAL SECTION PLAT

Petro-Hunt L.L.C.

258 119th Avenue S.W. Killdeer, ND 58640

Fort Berthold 152-94-13B-24-2H

250 feet from the north line and 1225 feet from the west line (surface location)

Section 13, T. 152 N., R. 94 W., 5th P.M.

250 feet from the south line and 600 feet from the west line (bottom hole location)

Section 24, T. 152 N., R. 94 W., 5th P.M.

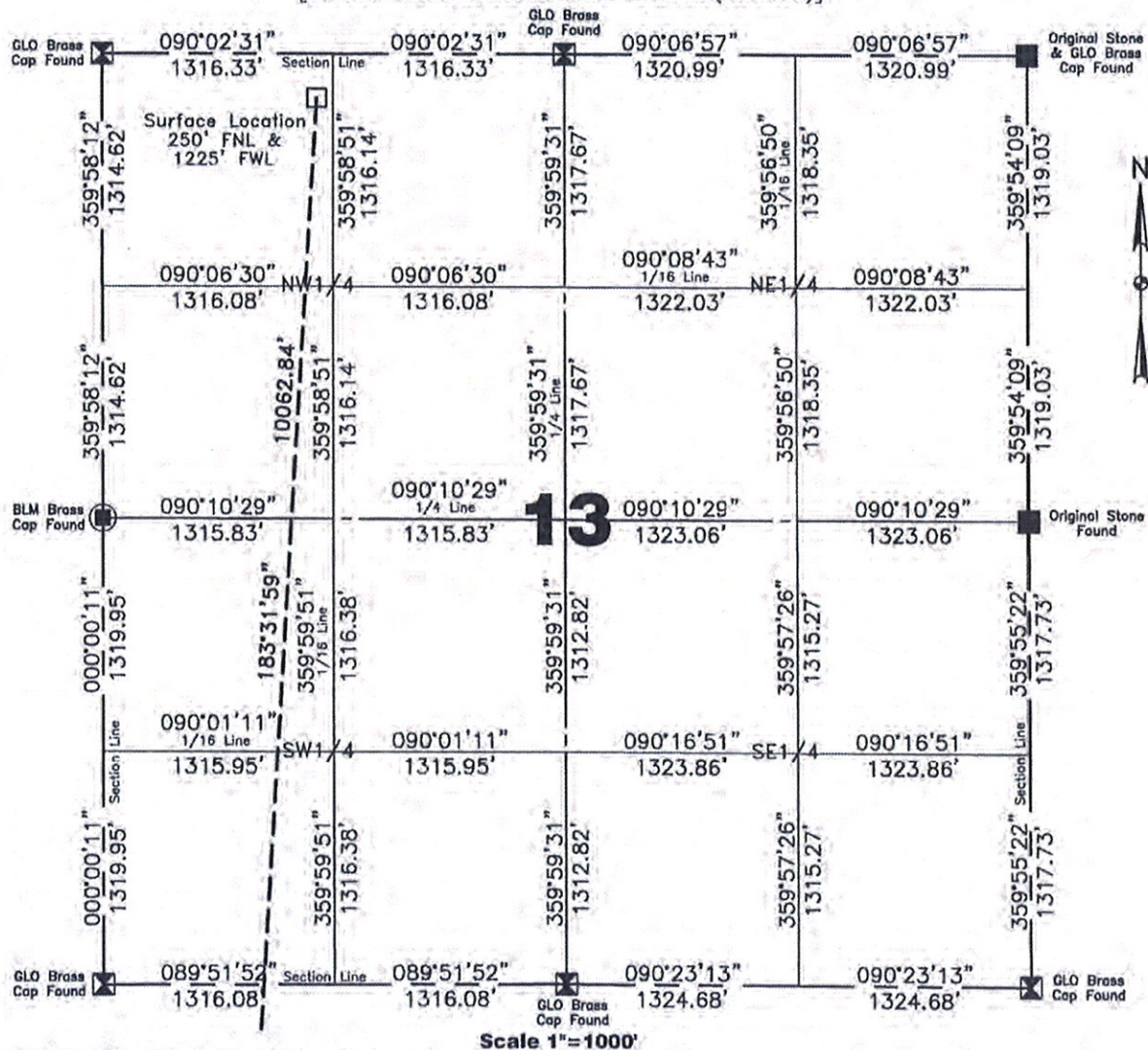
McKenzie County, North Dakota

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[Derived from OPUS Solution NAD-83(CORS96)]

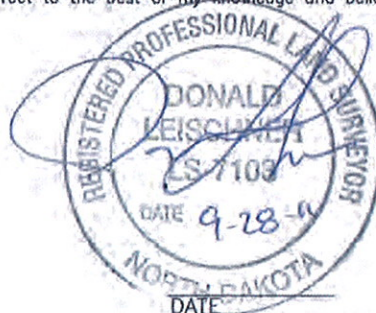


Confidentiality Notice: The information contained on this plat is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

I, Donald Leischner, Professional Land Surveyor, N.D. No. 7103, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

All corners shown on this plat were found in the field during Petro-Hunt LLC, Fort Berthold 152-94-13B-24-2H oil well survey on 8/02/2011. Distances to all others are calculated. All azimuths are based on the west line SW1/4 of Section 13, being on an azimuth of 000°00'11".

Surveyed By A. Lambert	Field Book 0-113
Computed & Drawn By J.D. - D.F.	Project No. 8711251

Revised  
9/16/2011

**Kadrmās  
Lee &  
Jackson**  
Engineers Surveyors  
Planners



## HORIZONTAL SECTION PLAT

**Petro-Hunt L.L.C.**

258 119th Avenue S.W. Killdeer, ND 58640

Fort Berthold 152-94-13B-24-2H

250 feet from the north line and 1225 feet from the west line (surface location)

Section 13, T. 152 N., R. 94 W., 5th P.M.

250 feet from the south line and 600 feet from the west line (bottom hole location)

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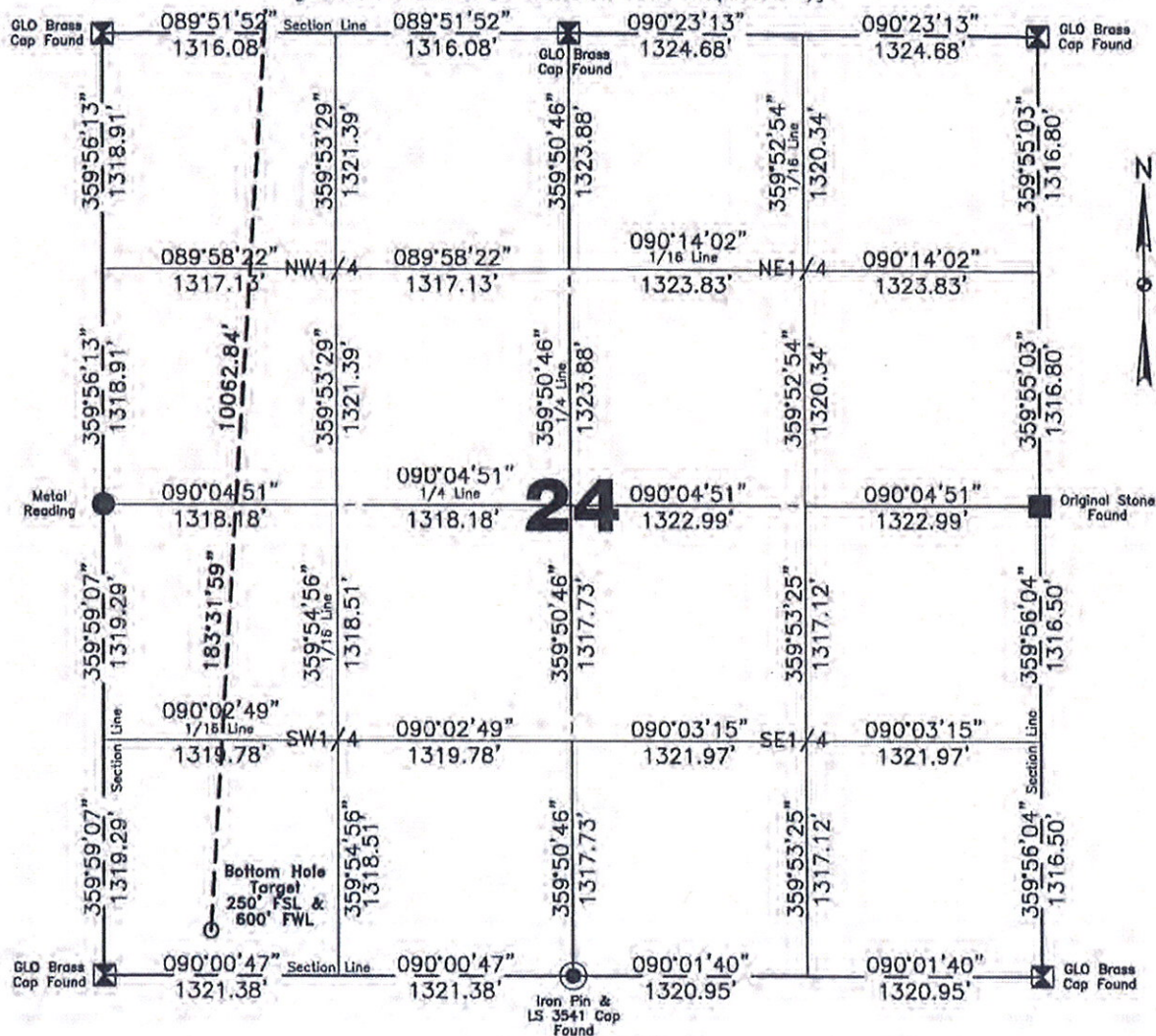
McKenzie County, North Dakota

Surface owner @ well site – Three Affiliated Tribes

Latitude 47°59'29.405" North; Longitude 102°39'33.254" West (surface location)

Latitude 47°57'50.288" North; Longitude 102°39'42.399" West (bottom hole location)

[Derived from OPUS Solution NAD-83(CORS96)]

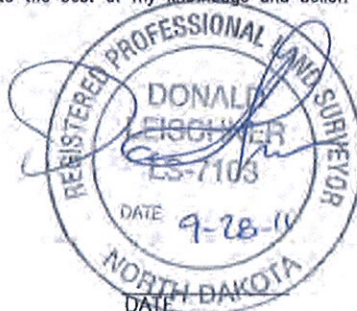


Confidentiality Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

**Scale 1"=1000'**

I, Donald Leischner, Professional Land Surveyor, N.D. No. 7103, do hereby certify that the survey plot shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

All corners shown on this plat were found in the field during Petro-Hunt LLC, Fort Berthold 152-94-13B-24-2H oil well survey on 8/02/2011. Distances to all others are calculated. All azimuths are based on the west line SW1/4 of Section 13, being on an azimuth of 000°00'11".



Kadrmass  
Lee &  
Jackson  
Engineers Surveyors  
Planners

Surveyed By A. Lambert	Field Book 0-113
Computed & Drawn By J.D. - D.F.	Project No. 8711251

Revised  
9/16/2011



# BOTTOM HOLE LOCATION PLAT

Petro-Hunt L.L.C.

258 119th Avenue S.W. Killdeer, ND 58640

Fort Berthold 152-94-13B-24-2H

250 feet from the north line and 1225 feet from the west line (surface location)

Section 13, T. 152 N., R. 94 W., 5th P.M.

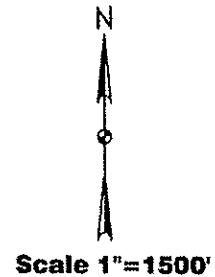
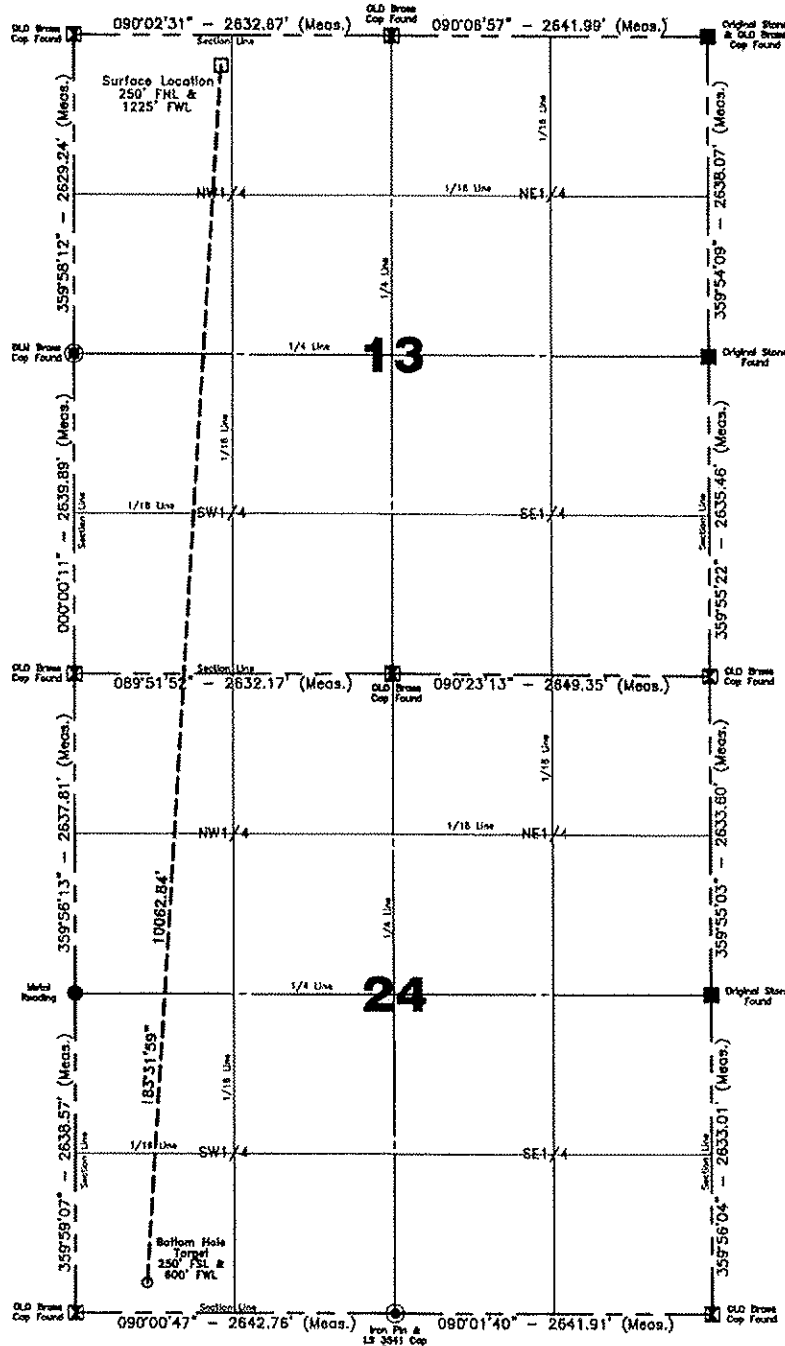
250 feet from the south line and 600 feet from the west line (bottom hole location)

Section 24, T. 152 N., R. 94 W., 5th P.M.

McKenzie County, North Dakota

Surface owner @ well site - Three Affiliated Tribes

Latitude 47°59'29.405" North; Longitude 102°39'33.254" West (surface location)  
Latitude 47°57'50.288" North; Longitude 102°39'42.399" West (bottom hole location)  
[Derived from OPUS Solution NAD-83(CORS96)]



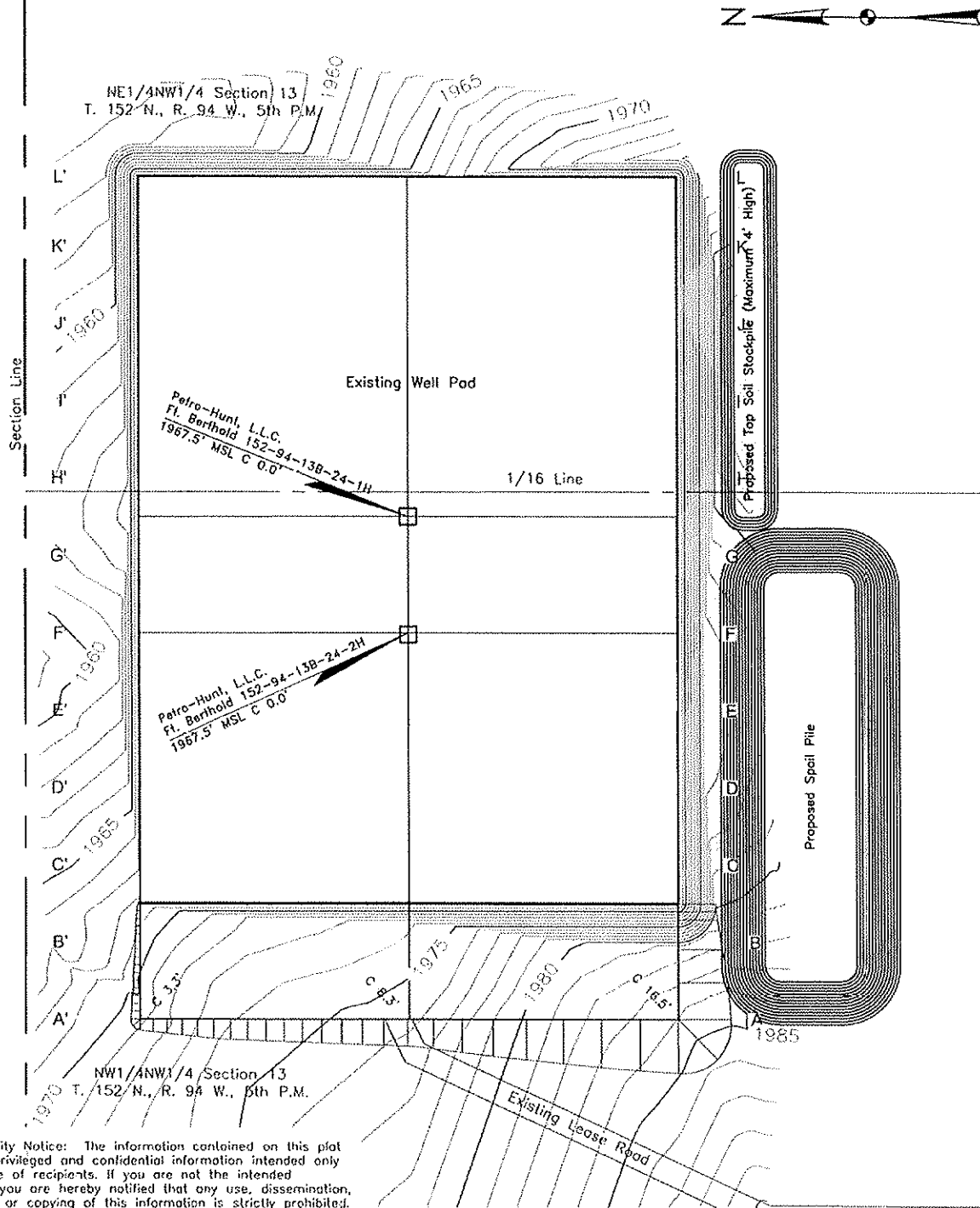
Confidentiality Notice:  
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Computed & Drawn By J.D. - D.F.	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1"=1500'	Date 8/11/2011
Field Book 0-113	Material B.H. Layout	Revised 9/16/2011	Project No. 8711251	Drawing No. 4

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Lee &  
Jackson  
Engineers Surveyors  
Planners



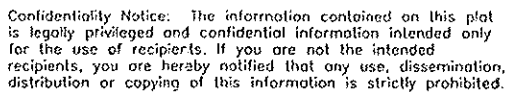
# Fort Berthold 152-94-13B-24-1H & Fort Berthold 152-94-13B-24-2H Original Ground



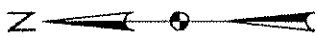
Confidentiality Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 100'	Date 8/11/2011
Field Book 0-113	Material Original Ground	Revised 4/11/2012	Project No. 8711251	Drawing No. 6

Kadmas  
Lee &  
Jackson  
Engineers Surveyors  
Planners



**Kadrmas  
Lee &  
Jackson**  
Engineers Surveyors  
Planners

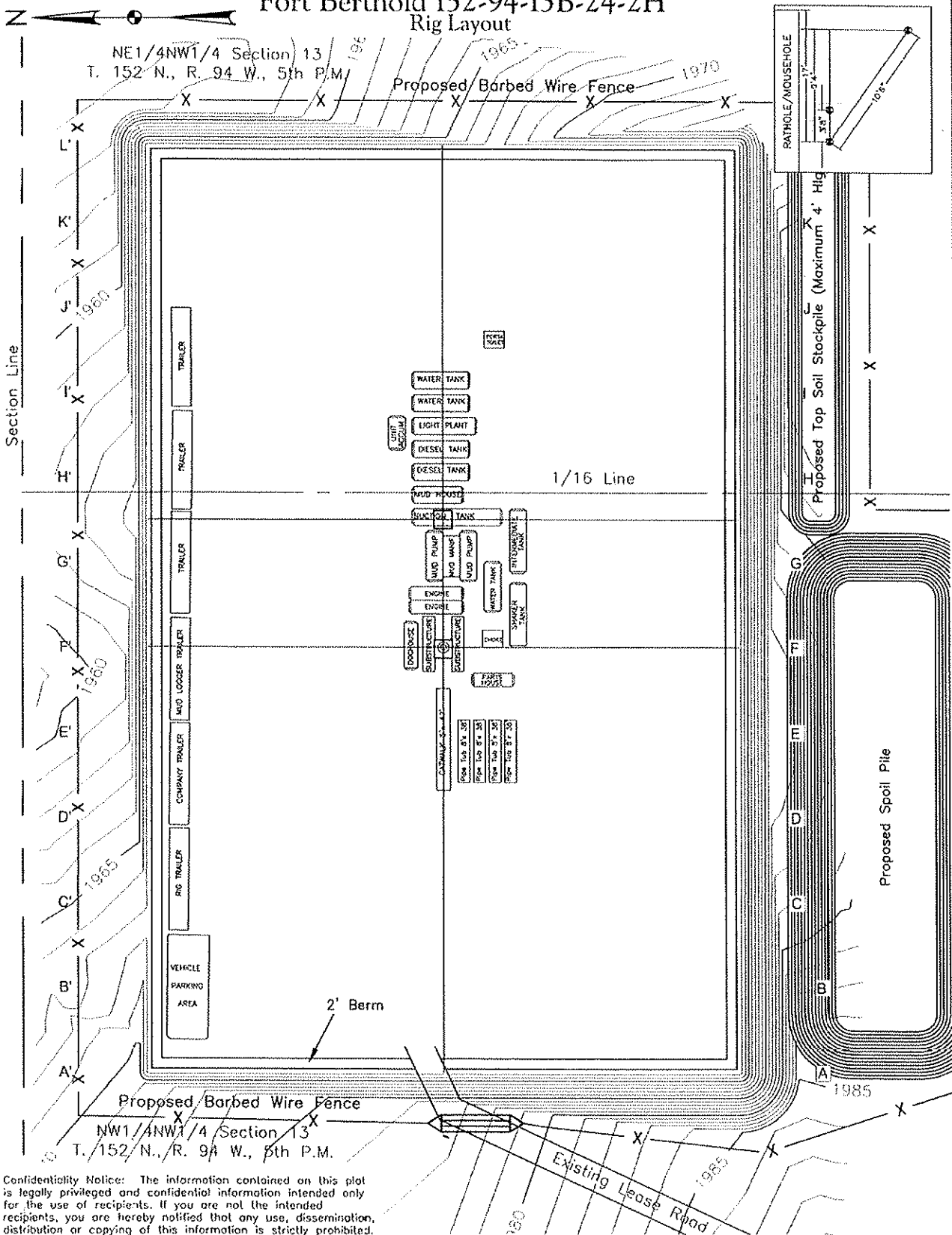


# Fort Berthold 152-94-13B-24-2H Rig Layout

NE1/4NW1/4 Section 13  
T. 152 N., R. 94 W., 5th P.M.

Proposed Barbed Wire Fence

Section Line

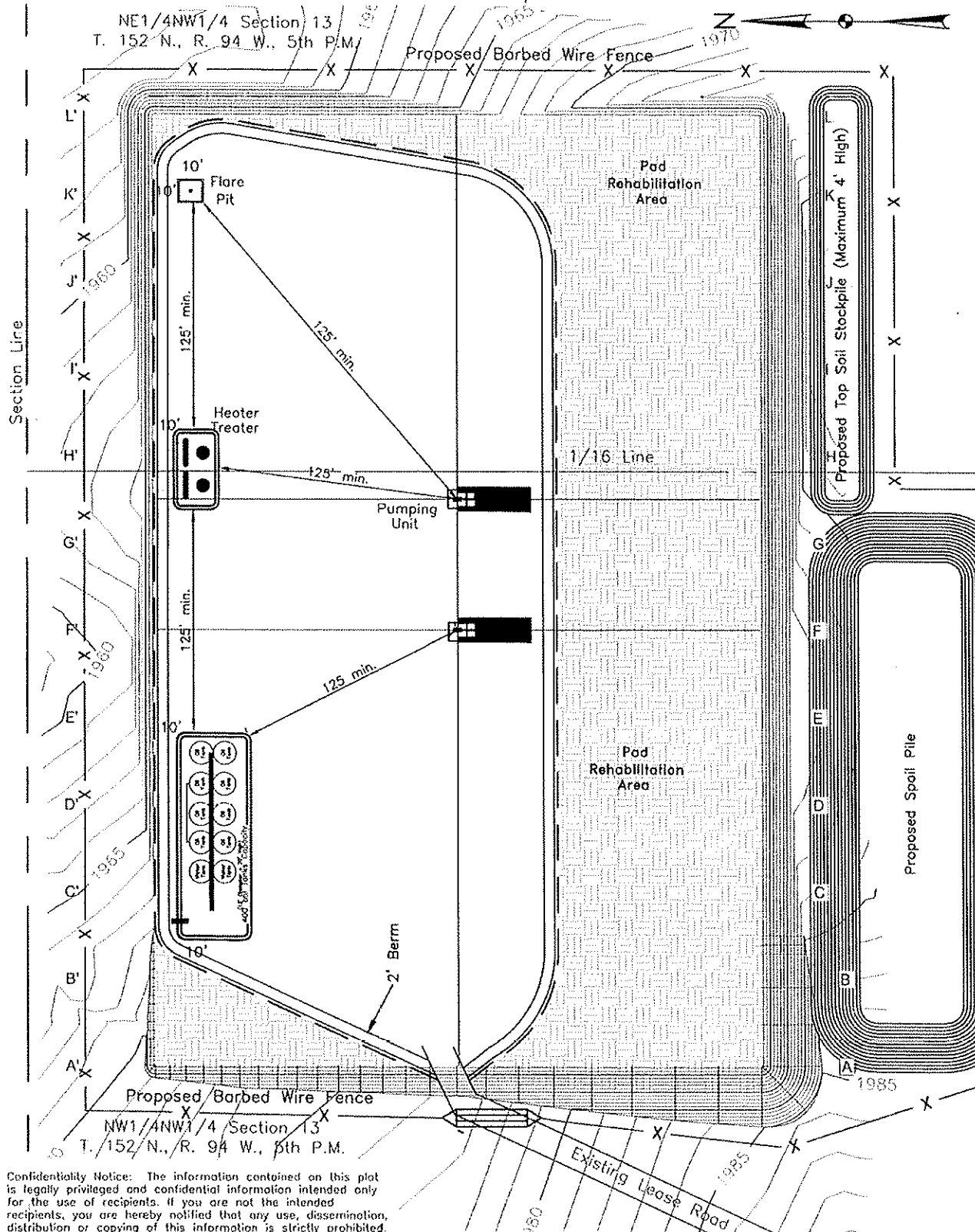


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Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 8/11/2011
Field Book 0-113	Material Rig Layout	Revised 4/11/2012	Project No. 8711251	Drawing No. 9

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Lee &  
Jackson  
Engineers Surveyors  
Planners

# Fort Berthold 152-94-13B-24-1H & Fort Berthold 152-94-13B-24-2H Production Layout

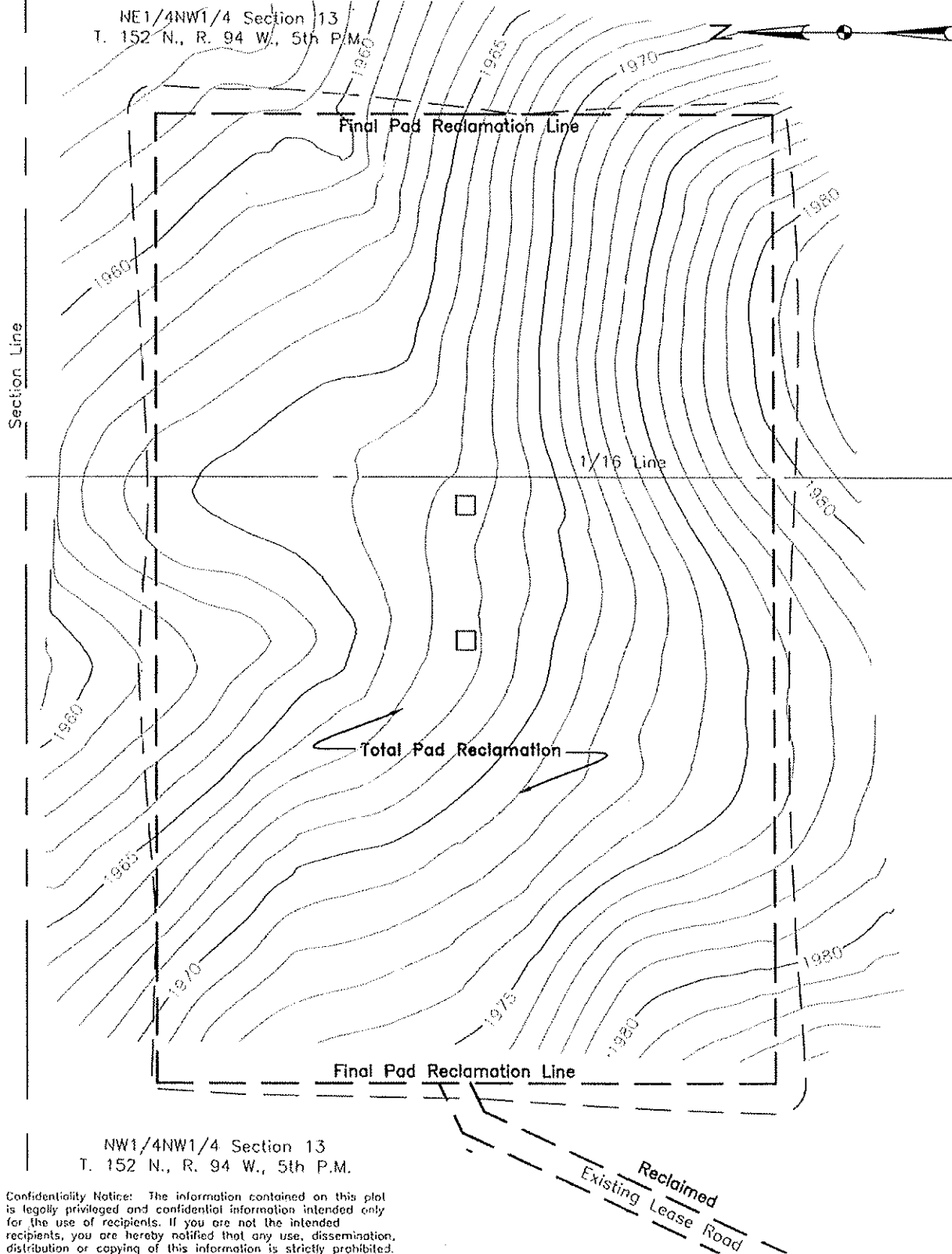


Confidentiality Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 8/11/2011
Field Book 0-113	Material Frac Layout	Revised 4/11/2012	Project No. 8711251	Drawing No. 10

Kadmas  
Lee &  
Jackson  
Engineers Surveyors  
Planners

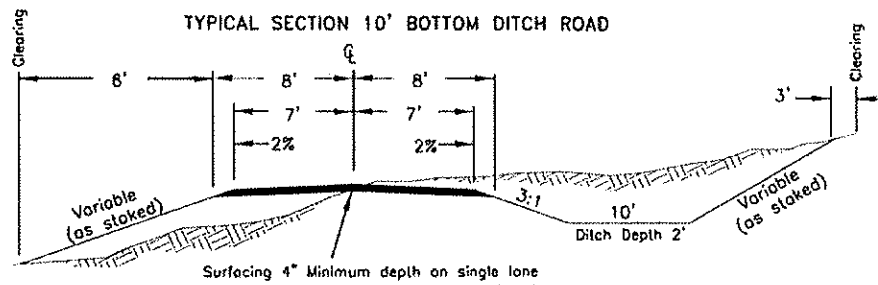
# Fort Berthold 152-94-13B-24-1H & Fort Berthold 152-94-13B-24-2H Reclamation Layout



Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 8/11/2011
Field Book 0-113	Material Reclam Layout	Revised 4/11/2012	Project No. 8711251	Drawing No. 11

Kadmas  
Lee &  
Jackson  
Engineers, Surveyors  
Planners

Fort Berthold 152-94-13B-24-1H & Fort Berthold 152-94-13B-24-2H  
Roadway Typical Sections



TYPICAL "B"

No Scale

## FILL SLOPES

3:1 Under 4' Height  
2:1 Over 4' Height  
(-) Slopes steeper than 2:1 will  
be subject to FS approval

## FILL WIDENING

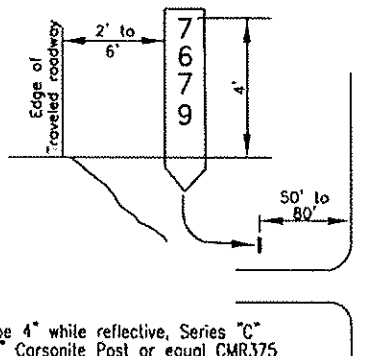
2' to 5' high/odd 1'  
Over 5' high/odd 2'

### CUT SLOPES

3:1 Under 10' height  
2:1 10' to 20' height  
(-) Variable over 20'  
height W/FS approval

CURVE WIDENING  
130' / R

TYPICAL SECTION VERTICAL ROUTE MARKER



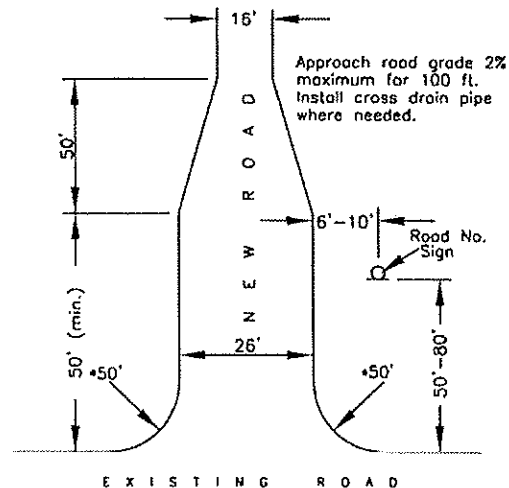
Letters shall be 4" white reflective, Series "C"  
on Brown 6" 6" Corsonite Post or equal CMR375

Figure 11-28.- Typical Signage for Vertical Route Markers

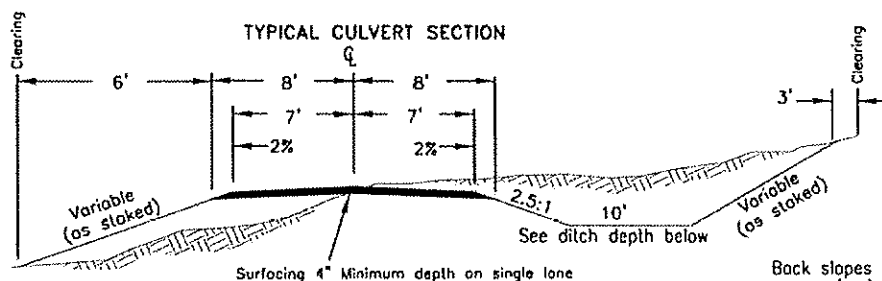
TYPICAL "F"

No Scale

TYPICAL APPROACH ROAD CONNECTION



\*As noted on road sheets



Fill slopes are  
V1 H1.5 (1.5:1)  
or as sloped

Ditch width shall be the larger of the following:

- A. Standard ditch width
- B. 2 times the pipe diameter
- C. 4.25'

Ditch depth shall be:	
CMP diameter	Ditch depth
18"	2.5'
24"	3.0'
36"	4.0'
48"	5.0'

Back slopes are  
V1 H1 (1:1) or  
as staked

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TYPICAL "A"

No Scale

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale None	Date 8/11/2011
Field Book 0-113	Material Road Typical	Revised 4/11/2012	Project No. 8711251	Drawing No. 12

**Kadrmas  
Lee &  
Jackson**  
Engineers Surveyors  
Planners



Petro-Hunt L.L.C.

Fort Berthold 152-94-13B-24-1H

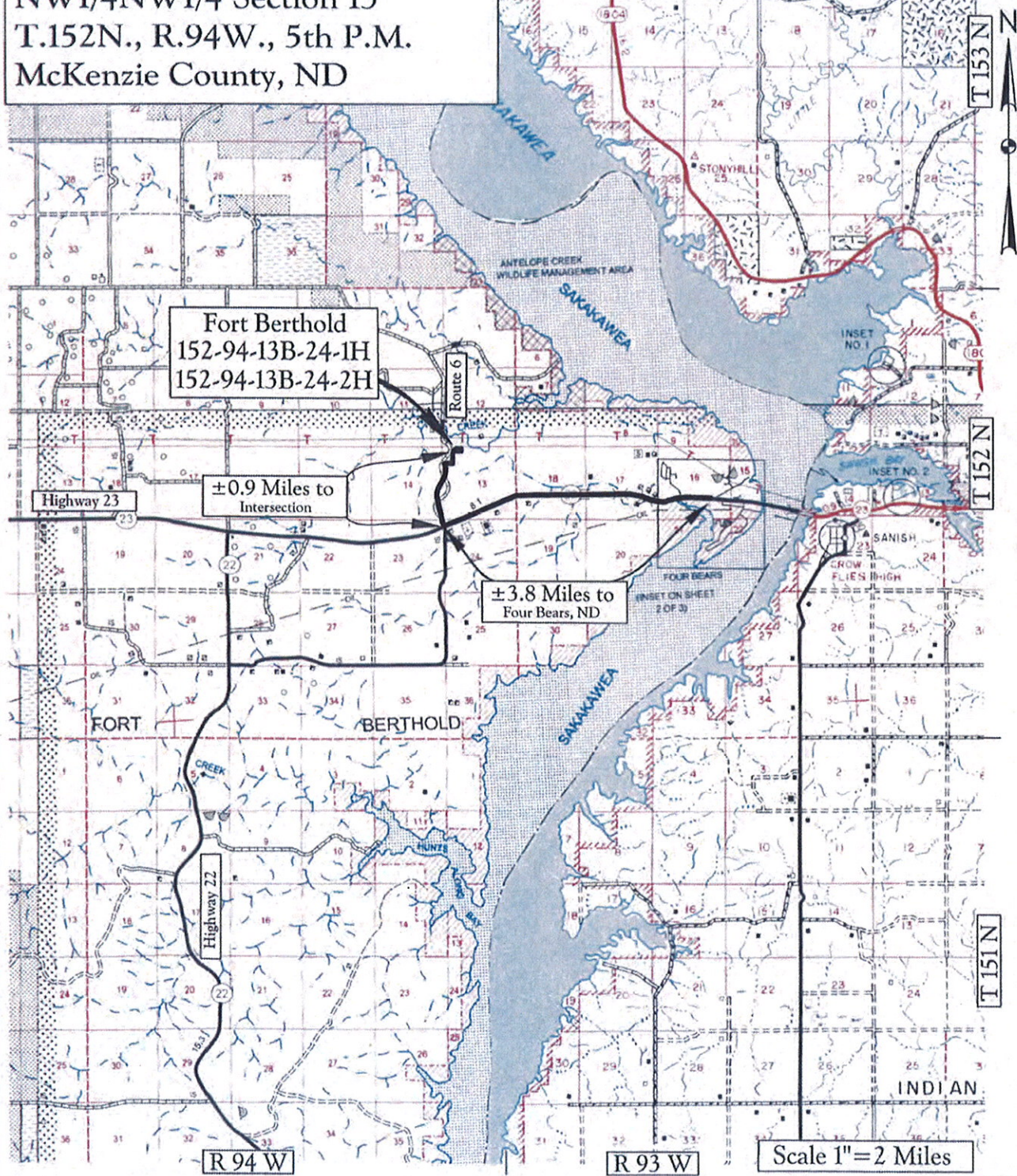
Fort Berthold 152-94-13B-24-2H

NW1/4NW1/4 Section 13

T.152N., R.94W., 5th P.M.

McKenzie County, ND

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Map "A"  
County Access Route

Legend  
Existing Roads ———  
Proposed Roads - - - - -

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Petro-Hunt L.L.C.

Fort Berthold 152-94-13B-24-1H

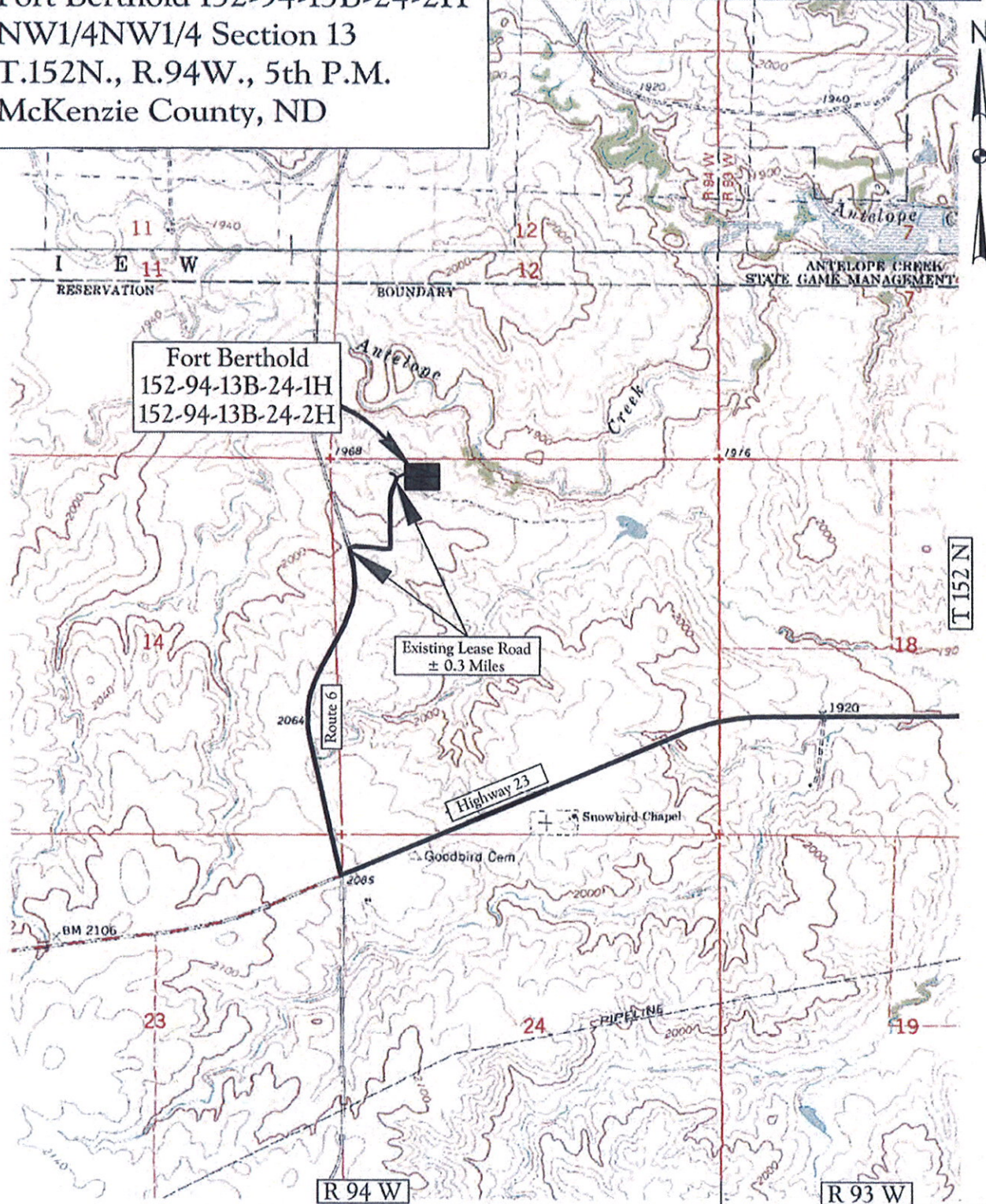
Fort Berthold 152-94-13B-24-2H

NW1/4NW1/4 Section 13

T.152N., R.94W., 5th P.M.

McKenzie County, ND

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Map "B"  
Quad Access Route

Legend  
Existing Roads  
Proposed Roads

Scale 1"=2000'

Kadmas  
Lee &  
Jackson  
Engineers Surveyors  
Planners

# **Notice of Availability and Appeal Rights**

**Petro-Hunt, LLC:** To authorize the drilling of one additional oil/gas well (Fort Berthold 152-94-13B-24-2H) atop one of the four well pads covered by the previously authorized EA

**The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to drilling of one additional oil/gas well (Fort Berthold 152-94-13B-24-2H) atop one of the four well pads covered by the previously authorized EA on the Fort Berthold Reservation as shown on the attached map. Construction by Petro-Hunt is expected to begin in 2012.**

**An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Earl Silk, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant Impact (FONSI).**

**The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA's decision to proceed with administrative actions *can* be appealed until June 16, 2012, by contacting:**

**United States Department of the Interior  
Office of Hearings and Appeals  
Interior Board of Indian Appeals  
801 N. Quincy Street, Suite 300, Arlington, Va 22203.**

**Procedural details are available from the BIA Fort Berthold Agency at 701-627-4707.**



Project locations.

